



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,687	03/15/2002	Sebastien MacKiae	PHFR 010033	4907
24737	7590	09/20/2004	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				VO, TED T
ART UNIT		PAPER NUMBER		
2122				

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/099,687	MACKAIE, SEBASTIEN
	Examiner Ted T. Vo	Art Unit 2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 15 March 2002.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 6/12/03.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is in response to the communication filed on 02/28/2002.

Claims 1-8 are pending in the application.

***Oath/Declaration***

2. The oath/declaration of this application is object to. It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

***Claim Objections***

3. Claim 8 is object to because the recitation shows an improper dependency. See 608.01(m) [R-2] Form of Claims:

Claims should preferably be arranged in order of scope so that the first claim presented is the least restrictive. All dependent claims should be grouped together with the claim or claims to which they refer to the extent practicable. Where separate species are claimed, the claims of like species should be grouped together where possible. Similarly, product and process claims should be separately grouped. Such arrangements are for the purpose of facilitating classification and examination.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2122

5. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "*A radio telephone including a phase locked loop intended to be controlled by means of a radio driver software having an architecture according to claim 1*" that is indefinite. This limitation is identified as being indefinite because it does not know what the functionality of the claim, whether

(a) it claims an apparatus (*A radio telephone*) implemented with steps as recited by Claim 1, or

(b) it claims an apparatus that is limited with radio telephones' components/elements.

It is noted that with the type of (b), this claim is under restriction requirement based on the different classification.

Examiner interprets the claim 8 limitations as of the type (a) as specified above.

#### ***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. The claims 1-7 are rejected under 35 U.S.C 101 because the claimed invention is directed to non-statutory subject matter.

#### As per claims 1-3:

Claim 1 is claiming a software architecture, where the claimed recitations are merely claiming a programming per se.

Claimed limitation recites the software architecture (programming per se) comprises a plurality of modules (programming segments/routines). A module calls other modules using a reference (reference parameters used in a call routine). Such claimed limitations are

programming per se that fails to be in the technological or useful arts and thus fails to recite patent eligible subject matters.

Claims 2-3 fail to remedy the deficiencies of independent claim 1.

According to the analysis above, claims 1-3 are merely programming per se and held nonstatutory.

As per claims 4-7:

Claim 4 is claiming a method of producing new modules-based software architecture based on an existing module based architecture merely comprising the steps:

- removing at least one of said plurality of modules, and
- altering the value of inputs corresponding to the reference of the removed module.

Claimed limitations fails to be tangible in hardware systems. The modules-based software architecture is merely a group of programming segments what could be implemented in paper; the methods of removing and altering could be performing using pen and paper. Such claiming fails to be in the technological or useful arts and thus fails to recite patent eligible subject matters.

Claims 5-7 fail to remedy the deficiencies of independent claim 4.

According to the analysis above, claims 4-7 are merely cite an abstract idea that is held nonstatutory.

8. To expedite a complete examination of the instant application the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of application amending these claims to place them within the four statutory categories of invention.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Walton, "R-CODE A Very Capable Virtual Computer", 1995.

Given the broadest reasonable interpretation of followed claims in light of the specification.

As per Claim 1: Walton discloses,

*A software architecture comprising a plurality of modules (M0-M4), at least one module of said plurality being a module (M1) adapted to call another (M3) of said plurality of modules using a reference (&M3) to said called module, wherein the reference (&M3) of the module to be called is supplied as an input to said calling module (M1) (See page 25, section 2.3.1, "Objects (module; calling module) contain pointers (call another) to other objects (the reference)"; see pages 139-140, section 4.5.6: disclosing a basis software architecture).*

As per Claim 2: Walton discloses,

*A software architecture as claimed in claim 1, wherein each of said plurality of modules (M0-M4) is adapted to recognize as a null reference an input parameter having a predetermined value and to not make a call when the module to be called is indicated by the null reference. (See page 25, section 2.3.1: "Such a pointer component is said to be null", or see page 92, Figure 3.9, null, unused, etc.).*

As per Claim 3: Walton discloses,

*A software architecture according to claim 1, wherein each module (Mx) corresponds to a software entity selected in the group consisting of functions, procedures, operating system tasks,*

*and layers. (See page 1-4, section 1.1, such as C, Fortran,..., consisting of functions, procedures, operating system tasks; see page 139, Calls and Returns: functions, procedures, operating system tasks, and layers).*

As per Claim 4: Walton discloses,

*A method of producing a new module-based software architecture based on an existing module-based architecture comprising a plurality of modules (M0-M4), at least one module of said plurality being a module (M1) adapted to call another (M3) of said plurality of modules using a reference (&M3) to said called module, wherein the reference (&M3) of the module to be called is supplied as an input to said calling module (M1) (See rationale in Claim 1 above), the method comprising the steps of: removing at least one of said plurality of modules (M3), and altering the value of inputs corresponding to the reference (&M3) of the removed module. (See page 23, second paragraph: "use of any dangling reference", disclosing that when an object/module deleted, all flags of dangling references pointed to the deleted object are flagged. See page 31, section 2.4, steps 1-5, disclosing updating/altering address to a new location, or see page 25, section 2.3.1, disclosing adapting null pointer to an unreachable object).*

As per Claim 5: Walton discloses,

*An architecture-producing method according to claim 4, wherein each of said plurality of modules (M0-M4) is adapted to recognize as a null reference an input parameter having a predetermined value and to not make a call when the module to be called is indicated by the null reference, and wherein the altering step comprises replacing inputs corresponding to the reference (&M3) of the removed module with a null reference. (See page 31, section 2.4, steps 1-5, disclosing updating/altering address to a new location, or see page 25, section 2.3.1, disclosing adapting null pointer to an unreachable object).*

As per Claim 6: Walton discloses,

*An architecture-producing method according to claim 4, and comprising the step of replacing the removed module by a replacement module (M5) having a different reference (&M5), wherein the altering step comprises replacing inputs corresponding to the reference (&M3) of the removed module with inputs corresponding to the reference (&M5) of the replacement module. (See page*

31, section 2.4, steps 1-5, disclosing updating/altering address to a new location, see page 33, section 2.4.1, disclosing using object map to obsolete the old address of a deleted object and to forward addresses of (new) objects that have been moved.)

As per Claim 7: Walton discloses,

*An architecture-producing method according to claim 4, wherein each module (Mx) corresponds to a software entity selected in the group consisting of functions, procedures, operating system tasks, and layers. (See page 1-4, section 1.1, such as C, Fortran,..., consisting of functions, procedures, operating system tasks; see page 139, Calls and Returns: functions, procedures, operating system tasks, and layers).*

As per Claim 8: According to the claimed interpretation as addressed in sections 4-5 above, Walton discloses,

*A radio telephone including a phase locked loop intended to be controlled by means of a radio driver software having an architecture according to claim 1, because claim 8 is an apparatus recited with limitations corresponding the steps of Claim 1. Claim 8 is rejected in the same reason as set forth in Claim 1.*

### **Conclusion**

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hills, US Pat. No. 6,654,773, disclose including garbage collection.

Krueger, "Software Reuse", discloses reuses processes of creating software.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (703) 308-9049. The examiner can normally be reached on 8:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

After October 25, 2004, examiner can be reached at new telephone number (571) 272-3706 and the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3694.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TED T. VO  
TTV  
Patent Examiner  
Art Unit 2122  
September 15, 2004